Depot Technology Opportunities Breakout Session

Sponsored by the *Joint Group on Depot Maintenance* for the

2009 DOD Maintenance Symposium

Depot Technology Opportunities

Panel Members:

- AIR FORCE: Brig Gen Lee Levy, WR-ALC
- NAVSEA: CAPT Mark Whitney, PSNSY&IMF
- MARINE CORPS: Col Harold Johnson, MCB
- ARMY: COL Dan Mitchell, RRAD
- NAVAIR: CAPT Fred Melnick, FRCSW
- MODERATOR: Col Walter Munyer, JDMAG

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Question 1 – Brig Gen Levy (Air Force):

- It has been asserted that acquisition accounts for approximately 20 percent of lifecycle costs, while sustainment makes up the remaining 80 percent. It also has been asserted that acquisition programs focus more on platform-related maintainability versus maintainability at the depot level. **How can technology insertion be facilitated over the lifecycle for both the platform and the industrial plant?**

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Question 2 – CAPT Whitney (NAVSEA)

- In today's evolving national security environment, our ability to maintain an overseas presence, respond to complex emergencies, and conduct operations far from our shores, depends heavily on the availability and sustainability of our ships, ground vehicles, and aircraft, along with our ability to field new weapon systems. **In this challenging environment, what is the foremost technology requirement facing your depot? What tools are available to help you overcome these challenges, and what barriers do you face?**

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Question 3 – Col Johnson (Marine Corps)

- Depot Commanders and supply chain managers face unique challenges posed by reset workloads. Aging weapon systems continue to create new challenges, and equipment generating from combat zones often requires extensive repairs. **What are three technology-related initiatives that can help you and your supply chain manager in addressing supply support reset challenges?**

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Question 4 – COL Mitchell (Army)

- Reset presents our depots with many challenges. Visibility of demand is poor. Availability of supply support is uncertain. Availability of necessary skills and capacity to meet surging demand is a concern. **What technology innovations would be useful in helping you meet the challenges posed by workload generating from Operation Enduring Freedom/Operation Iraqi Freedom?**

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M939 RESET

Technology Challenges and Requirements

2006 & 2009
DoD
Depot
Maintenance
Excellence
Award

CHALLENGES

- Diminishing Manufacturing Sources
- Delayed Desert Damage Degradation
- Pre-shop Analysis on Multiple SOW
  - Scope of Work Vehicles - - IROAN vs. Overhaul

INNOVATIONS

- Flexible Manufacturing Centers with Reverse Engineering and Rapid Prototype Fabrication
- Active UID on Components
- Corrosion Control Paints and Hardware
- Supply Chain Management Partnerships
- Flow & Standard Work vs. IROAN and Bay Repair

ISO 9001:2000 & 14001:2004 Registered

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HMMWV RESET/RECAP

Technology Challenges and Requirements

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CHALLENGES

- Overload Frame Cracks
- Delayed Desert Damage Degradation
- Cadmium Corrosion Resistance
- One Month Stock Outs

INNOVATIONS

- Supply Chain Management Partnerships
- Composites to Lighten Vehicles
- Large Scale Crack Detection
- Improved Corrosion Control

ISO 9001:2000 & 14001:2004 Registered

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M915/M916 RESET

Technology Challenges and Requirements

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CHALLENGES

- Configuration Control
- ECMs not Matched to Vehicles
- Diminishing Manufacturing Sources

INNOVATIONS

- Ability to Read & Program ECMs
- Improved PSA Through Active UID
- Supply Chain Management Partnerships

ISO 9001:2000 & 14001:2004 Registered

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MISCELLANEOUS RESET

Technology Challenges and Requirements

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- Computer Automated Part Ordering from Shop Floor, Disassembly, or Pre-shop Analysis

- Active UID on Major Components Containing Maintenance History for use in PSA

- Right-Sized Equipment -- Get Away from Monuments --
  - Dynomometer, Cleaning, Paint, Engine Shops – to Reduce TAKT Time, WIP, and Transportation Waste

- Improved, Right-Sized, Cleaning Technology to Remove Corrosion

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Question 5 – CAPT Melnick (NAVAIR)

- According to the DOD Director of OT&E, "The single greatest driver of O&S costs is reliability. The more reliable the system, the less it costs to operate and sustain in the field. Improved reliability can mean substantial cost savings, and even a small investment in reliability, can significantly decrease O&S costs." **Given the fiscal constraints in most weapon system programs for technology insertion, what factors do you think should be considered in balancing expenditures for reliability versus expenditures for maintainability in terms of lifecycle costs?**

Investment in Reliability and Maintainability

- O & S costs driven by R & M
- Reliability drives maintainability
- Investing in reliability early yields huge life cycle cost savings
- Reliable components should outlast airframe life
- Airframe corrosion prevention impacts maintainability
- Expensive complex components are primary focus
- Business case analysis must show ROI

FRC Southwest
CAPT Fred Melnick

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